

NORTH CAROLINA DIVISION OF
AIR QUALITY

Application Review

Issue Date:

Region: Raleigh Regional Office
County: Wilson
NC Facility ID: 9800155
Inspector's Name: Will Wike
Date of Last Inspection: 05/30/2017
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Ardagh Glass Inc.

Facility Address:
Ardagh Glass Inc.
2201 Firestone Parkway
Wilson, NC 27893

SIC: 3221 / Glass Containers
NAICS: 327213 / Glass Container Manufacturing

Facility Classification: Before: Title V After:
Fee Classification: Before: Title V After:

Permit Applicability (this application only)

SIP:
NSPS:
NESHAP:
PSD:
PSD Avoidance:
NC Toxics:
112(r):
Other:

Contact Data

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Application Data

Application Number: 9800155.16A
Date Received: 10/17/2016
Application Type: Renewal
Application Schedule: TV-Renewal
Existing Permit Data
Existing Permit Number: 03713/T36
Existing Permit Issue Date: 06/22/2016
Existing Permit Expiration Date: 10/31/2017

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2015	183.41	161.97	12.64	12.15	129.76	4.68	2.74 [Hydrogen chloride (hydrochlori]
2014	177.35	181.65	13.55	11.72	119.69	4.88	2.99 [Hydrogen chloride (hydrochlori]
2013	188.83	162.59	14.70	11.15	126.33	4.46	2.74 [Hydrogen chloride (hydrochlori]
2012	185.17	160.62	13.71	16.03	104.54	4.29	2.57 [Hydrogen chloride (hydrochlori]
2011	198.33	181.21	9.66	17.63	136.45	4.22	2.58 [Hydrogen chloride (hydrochlori]

Review Engineer: Joseph Voelker

Review Engineer's Signature:

Date:

Comments / Recommendations:

Issue 03713/T37

Permit Issue Date:

Permit Expiration Date:

I. Introduction and Purpose of Application

Ardagh Glass Inc. (AGI) owns and operates a glass container production facility located in Wilson, North Carolina. The purpose of this application is to renew the Title V air permit. AGI is also requesting a number of updates to the permit.

II. Chronology

Date	Description
10/17/2016	An application was received and assigned application no. 1900015.17B. Pursuant to 15A NCAC 02Q 0513(b), TV renewal applications are due 9 months prior to the expiration date. This application was submitted roughly 12 months prior to the October 31, 2017 permit expiration date.
11/7/2017	A list of draft changes to the raw material handling operations was sent to the consultant via email
11/28/2017	A response to the list was received via email
12/19/2017	Draft sent to Permittee for review
01/11/2017	First round of comments received from Permittee
01/16/2018	Second draft sent to Permittee
01/25/2018	Second round of comments received from Permittee
MM/DD/YYYY	Public Notice published on NCDEQ DAQ website; concurrent public/EPA comment period begins
MM/DD/YYYY	Public comment period ends
MM/DD/YYYY	EPA comment period ends

III. Modification Description

Renewal

AGI currently operates under permit no. T36 issued June 22, 2016. All modifications that have occurred since the previous renewal (permit no T30, issued November 16, 2012) have been subjected to EPA, affected states and public review procedures pursuant to 15A NCAC 02Q .0521 and 0522 and are covered under the permit shield pursuant to 15A NCAC 02Q .0512. See Section V for a history of the permitting actions since the last permit renewal.

Any substantial changes to the permit are discussed in Section IV below. All changes to the permit, including changes to the insignificant activities list are listed in Section VIII.

IV. Regulatory Review

All modifications that have occurred since the last permit renewal have been subjected to public and EPA review procedures. The most recent modification occurred with permit no T35 issued June 21, 2016. Brief discussions of all applicable air quality regulations on a source-specific basis are presented below.

A. The following source:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
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Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-1	<p>Glass melting furnace including the following equipment:</p> <p>(i) one natural gas/propane/No. 2 fuel oil/ No. 4 fuel oil and oxygen (oxy fuel) fired furnace (Furnace #28) with a 565 ton per day maximum glass pull rate (90 million Btu per hour maximum heat input capacity)</p> <p>(ii) one natural gas/propane-fired distributor (3.26 million Btu per hour maximum heat input capacity)</p> <p>(iii) five natural gas/propane-fired forehearths (12.02 million Btu per hour combined maximum heat input capacity)</p>	n/a	n/a

15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

The permittee is currently required to conduct annual sources tests for total PM, maintain daily production rate records and an annual reporting requirement. The most recent source test was conducted on March 17, 2016 and the test reported 14.02 lb/hr against an allowable emission rate of 29.59 lb/hr. No changes to the permit are necessary. Continued compliance is expected.

15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

This regulation limits SO₂ emissions to 2.3 lb/mmBtu of heat input. This includes SO₂ emissions originating from sulfur containing batch materials. The furnace is also subject to SO₂ emission limits pursuant to a Global Consent Decree (GCD), which are included in the permit at Sections 2.2 A and B and Section 2.3. The GCD requires a 30-day rolling average SO₂ emission limitation of 2.4 lb/ton when firing natural gas and 4.4 lb/ton when firing fuel oil. SO₂ CEMS are used pursuant to the GCD. Given the maximum heat input into the furnace is 90 mmBtu, these GCD limits equate to 0.62 and 1.15 lb/mmBtu respectively. Thus, compliance with the GCD limits will ensure compliance with 02D .0516 by a very wide margin. Therefore, no monitoring, recordkeeping or reporting is required for SO₂ emissions from the firing of natural gas/propane/ No. 2 fuel oil/No. 4 fuel oil in the glass melting furnace. No substantive changes will be made to the existing permit condition.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

This rule limits opacity to 20% when averaged over a six-minute period with some exceptions. The current permit requires the use of COMS and the M/R/R via NSPS subpart CC on the melter to demonstrate compliance. No substantive changes will be made to the existing permit condition.

15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS - 40 CFR PART 60 SUBPART CC - STANDARDS OF PERFORMANCE FOR GLASS MANUFACTURING PLANTS

This NSPS limits the melter to filterable PM emissions of 1.0 lb/ton of glass produced and the use of opacity as an indicator of proper operation and maintenance. Opacity has also been utilized for Title V purposes as monitoring to ensure compliance with the PM standard. Annual testing is also required. The most recent source test was conducted on March 17, 2016 and the test reported 0.7 lb/ton of glass. No changes to the permit are necessary. Continued compliance is expected.

15A NCAC 02D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project consisting of modifications to the forehearths, distributor and melter associated with Furnace GF-1 (ID No. GF-1). This project also involves the modification of other ancillary equipment and is fully described in application nos. 9800155.09B, 9800155.10B and 9800155.11B. The Permittee maintained records of the actual emissions of PM₁₀/PM_{2.5} from the GF-1 melter in tons per year on a calendar year basis for five years following the resumption of regular operations upon commencement of the modifications described in application nos. 9800155.09B, 9800155.10B and 9800155.11B.

These modifications were completed as of June 2011. Therefore, the five calendar year reporting requirement ended with calendar year 2016. The 2016 report included the following:

PM10 = 51.8 tpy or 0.73 lb/ton

PM2.5 = 51.8 tpy or 0.73 lb/ton

Glass pulled = 143,315 tons per year

The 2015 report included the following:

PM10 = 67.1 tpy or 0.79 lb/ton

PM2.5 = 67.1 tpy or 0.79 lb/ton

Glass pulled = 170,497 tons per year

From the original projected actuals calculation in application .11B, the baseline actual emissions were as follows:

PM10 = 78.9 tpy or 1.0 lb/ton

PM2.5 = 76.1 tpy or 0.96 lb/ton

Glass pulled = 158,458 tons per year

Clearly, the actual emissions of the melter have dropped to levels below those of the baseline actual emissions. Thus there is no need to determine if the increases were below PSD significance levels. Clearly, PSD was not triggered as a result of these modifications. This 02D .0530(u) recordkeeping requirement will be removed from the permit at the request of the Permittee.

15A NCAC 02D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project consisting of modifications affecting the actual production throughput of the furnace (ID No. GF-1) and other equipment. This project is fully described in application nos. 9800155.14B and 9800155.14E. The Permittee shall maintain records of the actual emissions of PM₁₀/PM_{2.5}, SO₂, NO_x, H₂SO₄, Fluorides and Lead from the GF-1 melter in tons per year on a calendar year basis for ten years following the resumption of regular operations upon commencement of the modifications described in application no. 9800155.14B. and 9800155.14E.

These modifications have not commenced as of March 2017, therefore the 10-year recordkeeping requirement has not begun. No substantive changes will be made to the existing permit condition.

15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, SUBPART SSSSSS - "National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources

This furnace has not triggered the requirements of this regulation as it has not begun to use the targeted HAP containing materials.

State-Enforceable Only

15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

2.15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

State/Federal Enforceable Only

Global Consent Decree Requirements

See discussion elsewhere.

B. The following source:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-2	<p>Glass melting furnace including the following equipment:</p> <p>(i) one natural gas/propane/No. 2 fuel oil/ No. 4 fuel oil and oxygen (oxy fuel) fired furnace (Furnace #29) with a 500 ton per day maximum glass pull rate (98 million Btu per hour maximum heat input capacity)</p> <p>(ii) one natural gas/propane-fired distributor (9.1 million Btu per hour maximum heat input capacity)</p> <p>(iii) three natural gas/propane-fired forehearths (5.3 million Btu per hour combined maximum heat input capacity)</p>	n/a	n/a

15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

The permittee is currently required to conduct annual sources tests for total PM, maintain daily production rate records and an annual reporting requirement. The most recent source test was conducted on March 8, 2017 and the test reported 7.2 lb/hr against an allowable emission rate of 28.5 lb/hr. No changes to the permit are necessary. Continued compliance is expected.

15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

This regulation limits SO₂ emissions to 2.3 lb/mmBtu of heat input. This includes SO₂ emissions originating from sulfur containing batch materials. The furnace is also subject to SO₂ emission limits pursuant to a Global Consent Decree (GCD), which are included in the permit at Sections 2.2 A and B and Section 2.3. The GCD requires a 30-day rolling average SO₂ emission limitation of 2.4 lb/ton when firing natural gas and 4.4 lb/ton when firing fuel oil. SO₂ CEMS are used pursuant to the GCD. Given the maximum heat input into the furnace is 98 mmBtu, these GCD limits equate to 0.51 and 0.94 lb/mmBtu respectively. Thus, compliance with the GCD limits will ensure compliance with this regulation by a very wide margin. Therefore, no monitoring, recordkeeping or reporting is required for SO₂ emissions from the firing of natural gas/propane/ No. 2 fuel oil/No. 4 fuel oil in the glass melting furnace. No substantive changes will be made to the existing permit condition.

15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS - 40 CFR PART 60 SUBPART CC - STANDARDS OF PERFORMANCE FOR GLASS MANUFACTURING PLANTS

This NSPS limits the melter to filterable PM emissions of 1.0 lb/ton of glass produced and the use of opacity as an indicator of proper operation and maintenance. Opacity has also been utilized for Title V purposes as monitoring to ensure compliance with the PM standard. Annual testing is also required. The most recent source test was conducted on March 8, 2017 and the test reported 0.476 lb/ton of glass. No changes to the permit are necessary. Continued compliance is expected.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

This rule limits opacity to 20% when averaged over a six-minute period with some exceptions. The current permit requires the use of COMS and the M/R/R via NSPS subpart CC on the melter to demonstrate compliance. No substantive changes will be made to the existing permit condition.

15A NCAC 02D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

The Permittee has used projected actual emissions to avoid applicability of Prevention of Significant Deterioration requirements for a project consisting of modifications affecting the production throughput of the furnace (ID No. GF-2). This project is fully described in application no. **9800155.13A**. The Permittee shall maintain records of the

actual emissions of PM_{2.5} and SO₂ from the GF-2 melter in tons per year on a calendar year basis for five years following the resumption of regular operations upon commencement of the modifications described in application no. **9800155.13A**.

From the review for application no. 13A it was determined that only PM_{2.5} and SO₂ were necessary to track for 02D .0530(u) requirements. The projected actual annual emissions for PM_{2.5} and SO₂ are 36.8 and 105.8 tpy respectively.

Consistent with current permitting practice a table of the melter's projected actual emissions will be placed into the permit. These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, SUBPART SSSSSS - "National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources

This regulation applies only during operation when HAP containing materials are used. The performance testing (chromium for green glass) was performed on May 3, 2012. The notice of compliance status was submitted dated September 13, 2012. The facility is recordkeeping production rates for all metal HAP compounds processed at the facility. Semiannual reporting is specified for the subject emission sources. All records appear to be complete and up-to-date and the most recent semiannual report was reviewed and found to contain the required information. No substantive changes will be made to the existing permit condition.

State-Enforceable Only

15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

2.15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

State/Federal Enforceable Only

Global Consent Decree Requirements

See discussion elsewhere.

C. The following sources:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-07 through ES-09	Three No. 2 fuel oil-fired peak shaving generators (1600 KW each)	CD-PSG-07 through CD-PSG-09	Three oxidation catalysts
ES-10 and ES-11	Two No. 2 fuel oil-fired peak shaving generators (1600 1520 and 1600 KW respectively)	CD-PSG-10 and CD-PSG-11	Two oxidation catalysts

The Permittee has noted that the ES-10 rated engine capacity should be corrected to read 1,520 kW. This change will not make any difference with respect to compliance status or requirements in the permit.

15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

These engines burn fuel with a maximum of 15 ppm sulfur pursuant to MACT ZZZZ. These sources will easily meet the 2.3 lb/mmbtu limit. No M/R/R is required per current DAQ policy. No substantive changes will be made to the existing permit condition. Any minor changes will be addressed in the table of changes in Section VI.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

These sources are subject to a 20% opacity limitation. Per current DAQ policy no M/R/R is required for generators that combust No. 2 fuel oil. No substantive changes will be made to the existing permit condition. Any minor changes will be addressed in the table of changes in Section VI.

15A NCAC 02D .1111 "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, "Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Wilson facility peak-shaving generators (ES-7 – ES-11) are defined as non-emergency existing stationary RICE under Subpart ZZZZ §63.6590(a)(1)(iii). These generators are subject to the provisions of Subpart ZZZZ and are complying with the applicable emission and operating limitations with the use of installed oxidation catalysts. A review of the recent compliance inspection suggests that the Permittee is in compliance with all the requirements of this regulation and permit condition. No substantive changes will be made to the existing permit condition. Any minor changes will be addressed in the table of changes in Section VII.

D. The following sources:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
RM-1 through RM-15	Raw material storage, transfer, and batching operations	CD-1 to CD-9, CD-11 to CD-13, and CD-15	Thirteen bagfilters (9 bags and a total of 65 square feet of filter area each)
		CD-10 and CD-14	Two bagfilters (36 bags and a total of 382 square feet of filter area each)

The renewal application states the following:

RM-1 through RM-15 - raw material storage, transfer, and batching operations: Emissions from RM-1 (raw material/cullet receiving hoppers) are uncontrolled. Additionally, the control device number of CD-13 through CD-15 should be updated to CD-A through CD-C. Please refer to process flow diagrams in Appendix B for more details.

Subsequent correspondence with the facility has led to substantial revisions to the descriptors for these sources and associated control devices. The permit will be revised to read as follows:

Emission Source ID No.	Emission Source Description	Control Device	Control Device Description
RM-RH	Raw material receiving hopper	NA	NA
RM-1	raw material storage	CD-1	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-2	raw material storage	CD-2	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-3	raw material storage	CD-3	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-4	raw material storage	CD-4	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-5	raw material storage	CD-5	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-6	raw material storage	CD-6	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-7	raw material storage	CD-7	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-8	raw material storage	CD-8	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-9	minor ingredient storage	CD-9	cartridge filter (2 cartridges and a total of 380 square feet of filter area)
RM-10	raw material conveyor #1	CD-10	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-11	raw material conveyor #2	CD-11	bagfilter (9 bags and a total of 65 square feet of filter area)
RM-13	railcar raw material unloading	CD-A	bagfilter (36 bags and a total of 382 square feet of filter area)
RM-14	railcar raw material unloading	CD-B	bagfilter (36 bags and a total of 382 square feet of filter area)
RM-15	weigh/mix elevator	CD-C	bagfilter (9 bags and a total of 65 square feet of filter area)

15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

All of these sources are controlled by filtration (except for RM-RH) and have permit conditions requiring maintenance and recordkeeping. Continued compliance is expected. No substantive changes will be made to the existing permit condition.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

These sources are currently required to conduct VE readings once per month which is typical for these types of sources. No substantive changes will be made to the existing permit condition.

E. The following source:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
MS-1	Mold swabbing operation	n/a	n/a

This source is primarily a VOC source but the nature of the operation can result in some mist (PM) generation. It is a unit operation that emits fugitively into the indoor environment.

15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

This source emits indoors with no controls. No monitoring recordkeeping or reporting is required. No substantive changes will be made to the permit.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

This source emits indoors with no controls. No monitoring recordkeeping or reporting is required. No substantive changes will be made to the permit.

Facility Wide Affected Sources**15A NCAC 02D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS**

On November 1, 2016, amendments to 15A NCAC 02D .0902 were finalized to narrow applicability of work practice standards in 15A NCAC 02D .0958 from statewide to the maintenance area for the 1997 8-hour ozone standard. Facilities outside the maintenance area counties for the 1997 8-hour ozone standard would no longer be required to comply with the work practice standards in 15A NCAC 02D .0958. Wilson County is not a maintenance area county. The permit condition for 15A NCAC 02D .0958 will be removed from the permit under this renewal.

STATE ENFORCEABLE ONLY**15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

This rule requires the Permittee to not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary. This requirement is already included in the permit. This enforcement of this rule is generally complaint driven. It is unlikely that the modifications made pursuant to this application will result in any off-site odor issues. Continued compliance is expected.

State-Enforceable Only**15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

This renewal does not result in a change in emissions that would require the modeling demonstration approved on December 14, 2014 to be revisited. No substantive changes will be made to the permit except as described below.

From the application...

In May 2015, AGI submitted an addendum to an October 2014 Title V modification application to update the heat input capacity for the GF-1 forehearth and distributor (F&D) to 15.28 million British thermal units per hour (MMBtu/hr) total. The April 2014 modeled emission rates for these units were based on a total heat input capacity of 14.5 MMBtu/hr. AGI is requesting that the benzene and formaldehyde emission limits for the GF-1 F&D be updated to reflect this change. Since it was demonstrated in the April 2014 application that the modeled results of benzene and formaldehyde emissions were less than two percent of the AAL and the increase in potential emissions from the May 2015 addendum are less than 0.10% of the total modeled emissions, this change will not result in an AAL exceedance and no updated modeling is required.

This engineer agrees with this assessment. The benzene emission rate will be revised from 2.94E-05 to 3.10E-05 lb/hr annual average. The formaldehyde emission rate will be revised from 1.05E-03 to 1.11E-03 lb/hr annual average.

Global Consent Decree (GCD)

Ardagh (previously Saint Gobain Containers,) entered into a Global Consent Decree (GCD) with the United States Environmental Protection Agency (EPA), DENR and other state agencies. The Date of Entry of this Consent Decree is May 7, 2010. Pursuant to the GCD, SGCI is subject numerous requirements, which are found in Section 2.2 A.2, 2.2 A.3 and 2.3 of the permit. Most of the milestones under the GCD have passed and the facility now operates with SO₂, NO_x, H₂SO₄ and PM limits imposed under the authority of the GCD. No substantive changes are necessary to the permit conditions addressing the GCD except as explained below.

With the permit application received by DEQ on November 13, 2014 and amended on May 18, 2015, AGI requested an increase of the production capacity of Furnace #28 from 550 tpd to 565 tpd. As a result of this increase, the Abnormally Low Production Rate Threshold of Furnace #28 also increased. The new ALPR, as calculated according to the GCD, was updated from 193 tpd to 198 tpd with a permit application received by DEQ on July 6, 2015. However, in the NO_x section of the GCD (Section 2.3 IV.7) this change was not made in the furnace specific calculations. This change will be made in the revised draft permit.

V. Permitting History since last renewal

The following is the permitting history since the last permit renewal.

Permit No.:	T36
Issued:	06/21/2016
Application No.:	15A
Application Type:	TV-significant
Description:	

AGI would like to address the following: *(the following text is from the application)*

Saint-Gobain Containers, Inc. (now AGI) agreed to a global consent decree (GCD) with EPA and several states, including North Carolina, and NCDENR, which was entered by the United States District Court for the Western District of Washington at Seattle on May 7, 2010. Paragraph IV.8.g.iii of the GCD requires that AGI submit a complete application to the state/local permitting authority by June 30, 2015, for two federally-enforceable SO₂ emission limits measured on a 30-day rolling average for each of the process-controlled furnaces listed in Table 4 of the GCD. Under the GCD, the requested SO₂ emission limits apply beginning on the date of the permit application, except during periods specifically excluded as described in the application.

As required by the GCD, this application requests federally-enforceable SO₂ emission limits measured on a 30-day Rolling Average Emission Rate for the Wilson Furnaces.

This application will be processed pursuant to the significant modification procedures of 15A NCAC 02Q .0516.

Permit No.:	T35
Issued:	07/28/2015
Application No.:	14E
Application Type:	TV-significant
Description:	

AGI would like to address the following:

1. *(As stated in the application 14E):*

This permit application is being submitted to update and rebuild portions of GF-1 to maintain optimal operating ability and to increase the maximum permitted capacity of GF-1. With this application, AGI is proposing the following changes:

- Replacement of the existing refiner and alcove, resulting in a heat input capacity decrease from 6 MMBtu/hr to 5.365 MMBtu/hr.
- Relocation of the exhaust flue to the back of the furnace and elimination of previous exhaust flues.
- Addition of machine floor slab where old exhaust flues existed.
- Replacement of insulation.
- Refractory improvements.

AGI anticipates that these changes may increase the capacity of GF-1. Based on the detailed emission calculations provided in Appendix A, AGI could produce 565 tpd of glass from GF-1 on an annual basis without triggering PSD permitting for the proposed project. Therefore, AGI is requesting that the maximum glass pull rate description for GF-1 be updated to 565 tpd.

In addition to the changes described above, AGI requests the replacement of Conditions 2.1.A.5 and 2.1.A.6 with a new projected actual emissions reporting condition under 15A NCAC 02D .0530(u) associated with this project.

This furnace rebuild project is a separate project from those described in Application Nos. 9800155.09B, 9800155.10B, and 9800155.11B and may result in emission increases that should not be attributed to the previous projects. Therefore, continued reporting under these conditions following the proposed project would no longer be representative of emissions associated with the previous projects.

2. On May 18, 2015, AGI amended the original application submitted on 11/13/2014 to address the following:

(As stated in the application addendum):

Forehearth and Distributor Heat Input Capacity Revisions

After submittal of the permit application, AGI determined that the forehearth for Shops 281, 282, and 283 would be replaced. Additionally, the proposed distributor heat input capacity is lower than the heat input capacity included in the application. Following the proposed project, the heat input capacities for the GF-1 forehearth and distributor will be as follows:

GF-1 Forehearth- Combined heat input capacity of 12.02 MMBtu/hr

- New forehearth 281A - 2.475 MMBtu/hr
- New forehearth 281B - 2.475 MMBtu/hr
- New forehearth 282 - 2.41 MMBtu/hr
- New forehearth 283 - 2.41 MMBtu/hr
- Existing forehearth 284 - 2.25 MMBtu/hr

GF-1 Distributor - Heat input capacity of 3.258 MMBtu/hr

Furnace 28 Rebuild and Mold Cooling Fan Installation

AGI submitted a construction permit application in March 2014 (application no. 9800155.14B) for the installation of a mold cooling fan for Shop 284. The construction permit, permit no. T33, was issued for this project on June 9, 2014; however, the new mold cooling fan has not yet been installed. Due to the possibility of completing both projects within a short timeframe of each other, AGI conservatively requests that DENR consider the Furnace 28 rebuild project and Shop 284 mold cooling fan installation one project with respect to the air permit with a combined emission reporting condition under 15A NCAC 02D .0530(u). The projected actual glass pull rates resulting from the mold cooling fan installation will not exceed the projected actual glass pull rates provided in the emissions calculations in Attachment 1. Therefore, the emission calculations provided in Attachment 1 are representative of both projects.

The review engineer adds the following comments:

Permit no. T33 contained the following language in the cover letter:

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504 for the modifications addressed in application no. 9800155.14B on or before 12 months after commencing operation.

The Permittee has requested that this current application submittal, which is being processed as a significant modification, to be considered as the required Title V permit application pursuant to 02Q .0504 for the Mold Cooling Fan Installation. As will be shown below in the 02D .0530 regulatory discussion in Section III, the calculations provided for the Furnace 28 Rebuild project includes the emission increases associated with the Mold Cooling Fan Installation Project. This engineer agrees with this approach given that the 02D .0530(u) recordkeeping requirement will address both projects. The permit review document for permit no. T33 will be included as an attachment to this review.

Greenhouse Gas Emission Increase Calculations

At the request of DENR, AGI has provided greenhouse gas (GHG) emission increase calculations for the proposed project.

Furnace 29 - 02D .0530(u) Condition Removal

Condition 2.1.B.5 of the facility's Title V permit includes a five year reporting period for permit applications 9800155.08B, 9800155.09C, and 9800155.11A.

The facility has maintained records of emissions and submitted emissions reports for more than five years since completion of the Furnace 29 rebuild project (completed March 27, 2009). Therefore, the five year reporting requirement in this condition has been fulfilled, and AGI requests that this condition be removed from the Title V permit.

Fire Pump and Diesel Storage Tank Addition

In addition to the Furnace 28 changes described above, AGI requests the addition of a 183 hp compression ignition (CI) emergency fire pump and a diesel storage tank with a capacity less than 500 gallons to the insignificant activities list in the Title V permit.

Permit No.:	T34
Issued:	02/11/2015
Application No.:	14C
Application Type:	TV- State Only
Description:	

Ardagh is submitting this application to address the following requirement found in permit condition 2.2.A.2.d.:

The Permittee shall submit a permit application demonstrating compliance with 15A NCAC 02D .1100 by the earliest compliance date identified in condition 2.2.A.2.d.

Permit No.: T33
 Issued: 06/09/2014
 Application No.: 14B and 14D
 Application Type: TV- 1st step of 2-step significant
 Description:

SGCI would like to address the following:

1. (As stated in the application 14B):

SGCI is submitting this permit application to modify the mold cooling for Shop 284, which is associated with Glass Furnace No. 28. This project could potentially reduce the mold cooling time, which may result in a small percentage increase in glass production. Despite the actual production increase, the glass pull rate will not exceed the current production capacity of the furnace, which is 550 tons per day. There are no other projects associated with the proposed mold cooling change.

SGCI is seeking a construction permit for the proposed project in accordance with the procedures in Title 15A of North Carolina Administrative Code (15A NCAC) Chapter 02Q.0504 and 02Q .0300.

The equipment proposed to be installed are not emission sources themselves, but rather impact the production line associated with Furnace No. 28 (GF-1). From an air quality perspective, the impact would be a potential increase in actual pull rate of the furnace and hence a potential increase in actual emissions.

2. (As stated in the application 14D):

On April 11, 2014, all of the stock of Saint-Gobain Containers, Inc., was transferred from Compagnie de Saint Gobain S.A. to Ardagh Holdings USA, Inc. In conjunction with this stock sale, Saint-Gobain Containers, Inc. is changing its name to Ardagh Glass Inc. The owner and operator of the Henderson Plant, the tax ID, responsible official, landowner, and contact information (other than the name) remain the same, since there was no transfer of assets as a result of the stock sale and name change.

Enclosed with this letter is Form AA (Administrative Application) to request the name change from Saint-Gobain Containers, Inc. to Ardagh Glass Inc.

Permit No.: T32
 Issued: 04/11/2014
 Application No.: 14A
 Application Type: TV- significant
 Description:

The Permittee has submitted this application to:

1. Satisfy the requirements in the current permit to submit a Title V Air Quality Permit Application on or before 12 months after commencing operation of GF-2 (as described in application no. **9800155 13A**).
2. Update the applicability and requirements of New Source Performance Standard (NSPS) Subpart IIII for the emergency engines
3. Update the insignificant activities list to include four vacuum pumps and a portable central vacuum system.
4. The removal of Permit Condition 2.2.B.3.a due to North Carolina House Bill 952, and
5. A revision to the stack test report submittal deadlines in Permit Condition 3.JJ.4 to align with the regulatory deadlines.

It will be shown that all these requests cannot be fulfilled. See section III for full discussion.

Permit No.: T31
 Issued: 05/16/2013
 Application No.: 13A
 Application Type: TV- 1st step of 2-step significant
 Description:

SGCI would like to address the following:

Modification to install a mold chiller on Furnace No. 29 (ID No. GF-2)

On April 1, 2013 an application (**App No. 13A**) was received stating the following:

SGCI is submitting this permit application to install a mold air chiller for Shops 291 and 292 associated with Melter #29, which is part of GF-2. This project will reduce the mold cooling air temperature by approximately 40°F, which could result in a small percentage increase in glass production during the summer months. Despite the actual production increase, the glass pull rate will not exceed the current production capacity of the furnace, which is 500 tons per day (tpd). There are no other projects associated with the proposed chiller installations.

Note that a similar project was done on 2011 on Furnace GF-1 (permit no. T25 issued 04/27/2011)

The equipment proposed to be installed is not an emission source, but rather impacts the production line associated with Furnace No. 29. From an air quality perspective, the impact would be an increase in actual pull rate of the furnace and hence an increase in actual emissions.

Since this modifications requires a case-by-case determination of 02D .0530 applicability, and does not contravene or conflict with the existing permit, it can processed following the procedure set out in Rule .0501(c) of this Section.

In the interests of time the Permittee has chosen to the option under 02Q .0501(c)(2) which allows:

“a construction and operation permit following the procedures under Rule .0504 and filing a complete application within 12 months after commencing operation to modify the construction and operation permit to meet the requirements of this Section.”

Permit No.: T30
 Issued: 05/16/2013
 Application No.: 111F
 Application Type: TV-Renewal
 Description:

VI. NSPS, NESHAPS, PSD, Toxics, Attainment Status, 112(r), and CAM

NSPS

NSPS applicability is discussed in Section IV.

NESHAP/MACT

The facility is a minor source of HAP. Therefore, the Wilson facility is not subject to any major source NESHAPS. See discussion in Section IV for applicable MACT requirements.

PSD

Wilson County is in attainment for all pollutants. The facility is a PSD major source. The facility currently has three 02D .0530(u) recordkeeping conditions to demonstrate that certain modifications have not triggered PSD review. One will be removed during this renewal. See discussion in Section IV.

CAM

The only sources with control devices are the raw material handling operations found in Section 2.1 D of the permit and the peak shaving generators in Section 2.1 C. of the permit. Based on the emissions calculations supplied with the renewal application each source in Section 2.1 D has potential uncontrolled emissions of less than 100 tpy of each pollutant. Each generator in Section 2.1 C has potential uncontrolled emissions greater than 100 tpy of NO_x. However, the engines are not subject to any NO_x emission limitations. The control device is used to control CO emissions as a surrogate for HAP, not for NO_x emissions. CAM does not apply to any of the sources at the facility.

112r

The Permittee is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in 112(r).

Toxics

See discussion in Section IV.

VII. Compliance History

Based on the most recent compliance inspection report issued by Wilke Wike on May 30, 2017, Ardagh appeared to be operating in compliance with all permit requirements. The following discussion is excerpted from that report. Note none of these actions occurred in the previous 5 years.

ENFORCEMENT HISTORY: Ardagh has been issued four Notices of Violation (NOV) as identified in the Violations Module of IBeam. On November 3, 2011, an NOV was issued for late submittal of a stack test report. On July 19, 2010, an NOV was issued for late submittal of annual emissions inventory for calendar year 2009. On October 25, 2007, an NOV was issued for late submittal of EPA's copy of the 2007 annual compliance certification report. On March 9, 2006, an NOV was issued for failing to submit a 2005 annual compliance certification, a 2H'05 semiannual report, and a 4Q'15 quarterly report. No civil penalties have been assessed against the facility for any of the violations listed above.

VIII. Changes Implemented in Revised Permit

Existing Condition No.	New Condition No.	Changes
Cover Letter	Cover Letter	<ul style="list-style-type: none"> Used current shell language, updated permit numbers, dates, etc.
Permit page one	Same	<ul style="list-style-type: none"> Revised dates, permit numbers, etc. using current shell standards
Insignificant activities list	Same	<ul style="list-style-type: none"> Added IS-CC, “Carton Coding” Revised IS-DT3 to 240 gallons Revised IS-DT4 to 500 gallons Revised IS-KT1 from tanks to tank Revised IS-PW to “Parts Washer” Revised IS-VJ to “Video date coders” Revised IS-HET-1 to IS-HEC, Hot End Coating Hood Removed IS-UT3 Removed IS-DT9 Revised IS-PCO to read “Proceco Typhoon spray washer” Revised IS-EG1 to 688 kW maximum power output Revised IS-EG2 to 692 kW maximum power output Combined all cooling towers into one ID no., IS-CT Combine all laser jet coders into one ID No., IS-LJ
Section 1 – Permitted Equipment list	Same	<ul style="list-style-type: none"> Revised ES-10 from 1600 kW to 1520 kW Substantially revised the equipment and control device descriptors for the raw material handling operations Added the existing electric boost capacity to the descriptors for both furnaces. This is a simple descriptor change; no modifications were made to the furnace during this permitting action.
GLOBAL	Same	<ul style="list-style-type: none"> Replaced “assure” with ensure” (except in the General Conditions) consistent with current permitting practice.
2.1 A.3.d	Same	<ul style="list-style-type: none"> Removed the following language as it is inconsistent with current TV administrative permitting rules: <i>The Permittee may at anytime, reestablish, through administratively amending this permit consistent with 15A NCAC 02Q .0500, the three-hour block average opacity values contained in Section 2.1 A.1.d above.</i> <p>revised to read:</p> <p><i>The Permittee may at anytime, reestablish through permitting procedures consistent with 15A NCAC 02Q .0500, these three-hour block average opacity values.</i></p>

Existing Condition No.	New Condition No.	Changes
2.1 A.3.e.	Same	<ul style="list-style-type: none"> Removed the following language as it is inconsistent with current TV administrative permitting rules: <i>The Permittee may at any time, consistent with the provisions of 40 CFR 60.293(e), reestablish, through administratively amending this permit consistent with 15A NCAC 02Q .0500, the UCL values contained in Section 2.1 A.3.e above.</i> <p>revised to read:</p> <p><i>The Permittee may at any time, consistent with the provisions of 40 CFR 60.293(e), reestablish, through permitting procedures consistent with 15A NCAC 02Q .0500, these UCL values.</i></p>
2.1 B.3.d	Same	<ul style="list-style-type: none"> Removed the following language as it is inconsistent with current TV administrative permitting rules: <i>The Permittee may at anytime, reestablish, through administratively amending this permit consistent with 15A NCAC 02Q .0500, the three-hour block average opacity values contained in Section 2.1 B.3.d above.</i> <p>revised to read:</p> <p><i>The Permittee may at anytime, reestablish through permitting procedures consistent with 15A NCAC 02Q .0500, these three-hour block average opacity values.</i></p>
2.1 B.3.e.	Same	<ul style="list-style-type: none"> Removed the following language as it is inconsistent with current TV administrative permitting rules: <i>The Permittee may at any time, consistent with the provisions of 40 CFR 60.293(e), reestablish, through administratively amending this permit consistent with 15A NCAC 02Q .0500, the UCL values contained in Section 2.1 B.3.e above.</i> <p>revised to read:</p> <p><i>The Permittee may at any time, consistent with the provisions of 40 CFR 60.293(e), reestablish, through permitting procedures consistent with 15A NCAC 02Q .0500, these UCL values.</i></p>
2.1 A.5	NA	<ul style="list-style-type: none"> Removed 02D .0530(u) recordkeeping and reporting condition as the 5 year requirement has been met.
2.1 A.6	2.1 A.5	<ul style="list-style-type: none"> Simple renumbering
2.1 B.5.d.	Same	<ul style="list-style-type: none"> Consistent with current permitting practice, added a projected actual emissions table for Furnace melter on GF-2. These are not limits but rather a tool to assess if the original projections were correct.
2.1 C.3	Same	<ul style="list-style-type: none"> The 02D .1111 condition was revised to current permit shell standards, including revising condition numbering, and some language to make it more consistent with the rule. No substantive changes were made.
2.1 D	Same	<ul style="list-style-type: none"> Substantially revised the equipment and control device descriptors
2.1 D.3c and e	Same	<ul style="list-style-type: none"> Revised conditions to be consistent with current permitting shell standards. No changes in intent were made.

Existing Condition No.	New Condition No.	Changes
2.2 B.1	NA	<ul style="list-style-type: none"> 02D .0958 condition was removed as it is no longer applicable. All references to this rule throughout the permit were removed. This rule now only applies only in non-attainment or maintenance areas.
2.2 B.3	2.2 B.2	<ul style="list-style-type: none"> In the 02D .1100 condition, revised benzene and formaldehyde hourly emission rates for the GF-1 refiner and forehearth Simple renumbering
2.2 B.2	2.2 B 1	<ul style="list-style-type: none"> Simple renumbering
2.3	Same	Global consent decree
IV.7.c.iii.2	Same	<ul style="list-style-type: none"> For furnace 28 (GF-1), revised ALPR threshold to 198 tpd and the resulting NOx limit during ALPR to 735 lb NOx per day
IV.7.c.iii.4	Same	<ul style="list-style-type: none"> For furnace 28 (GF-1), revised ALPR NOx limit to 735 lb NOx/day in the equation for the NOx limit during malfunction and revised the NOx limit during malfunction to 2, 940 lb NOx per day
IV.7.c.iii.5	Same	<ul style="list-style-type: none"> For furnace 28 (GF-1), revised ALPR NOx limit to 735 lb NOx/day in the equation for the NOx limit during maintenance.
Section 3 General Conditions	Same	<ul style="list-style-type: none"> Section was revised from version 4.0 (12/17/2015) to 5.1(08/03/2017) Changes include: <ul style="list-style-type: none"> Condition LL was revised to clarify that the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes. Condition MM – removed STATE ENFORCEABLE ONLY; added comma after process areas to clarify intent

IX. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15 A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above.

X. Recommendations

TBD